DOCUMENT RESUME

ED 189 430 CE 026 069

AUTHOR Degener, David, Comp.: And Others
TITLE Producing Dissemination Materials. Final Draft Version.
INSTITUTION Far West Lab. for Educational Research and Development, San Francisco, Calif.
SPONS AGENCY Office of Career Education (DHEW/OE), Washington, D.C.
PUB DATE 80
CONTRACT 300-77-0477
NOTE 60p.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Adoption (Ideas): Budgeting: *Career Education: *Demonstration Programs: Diffusion: Guides: *Information Dissemination: *Material Development: *Production Techniques: Publications: Validated Programs
IDENTIFIERS Joint Dissemination Review Panel

ABSTRACT

This manual is intended to help projects approved by the Joint Dissemination Review Panel produce materials that will support their dissemination activities. Specifically directed toward career education projects, it should be equally useful for other projects. Section 1 discusses diffusion/adoption and these topics regarding materials: purpose, basic features, considerations, and materials development. Section 2 outlines the complete inventory of materials that can make up a dissemination package. These are grouped under four categories--awareness and selection, instruction, training, and management--approximating the stages in the diffusion process that require materials. Materials within each category are described in an outline format under these headings: item, audience, purpose, content, format, life expectancy, distribution, and quantity. Section 3 considers these elements of preparation of text: planning and scheduling the development process, budgeting, review, and final organization. Section 4 outlines tasks involved in producing materials--preparing rough layout, obtaining camera-ready copy, selecting and preparing photos and graphics, completing layout, printing, and finishing and bindings. Appendixes include information sheets on folding styles and binding methods. (YLB)

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PRODUCING DISSEMINATION MATERIALS

Compiled by

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FINAL DRAFT VERSION

Produced for

Office of Career Education
Department of Education

1980
ED Materials/Support Center
Far West Laboratory for Educational Research and Development

under contract to
Center for Resource Management, Inc.

CE026069

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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ACKNOWLEDGMENTS

Reviewers of this manual have contributed many sound ideas. They were Nancy Banker and Fred Rosenau, Far West Laboratory; Sam Corsi and Elizabeth Taylor, New York Office of Federal Demonstration Programs; Fred Gitlitz and Marilyn Musumeci, Center for Resource Management, Inc.; William Harris, Office of Career Education, Department of Education; Virginia Lish, Career Education Responsive to Every Student; Barbara Hanson, Pima County Developmental Career Guidance Project; and Jerry Ryan, Career Development Programs.

This project has been supported with Federal funds from the Department of Education under contract number 300-77-0477. The contents of this publication do not necessarily reflect the views or policies of the Department of Education, Far West Laboratory for Educational Research and Development, or Center for Resource Management, Inc., nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government, the Laboratory, or the Center.

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section 1

DISSEMINATION AND THE ROLE OF MATERIALS

This manual is intended to help projects approved by the Joint Dissemination Review Panel to produce materials that will support their dissemination activities. Although specifically directed toward career education projects, the manual should be equally useful for any project organizing for dissemination. A project that has received Panel approval is expected to respond to inquiries from interested educators and to share with others what the staff have learned. However, most projects seek approval because they are eager to disseminate their program actively. They have pride in accomplishment and want other schools to reap similar benefits. Many projects apply for special federal funding to support promotion of their program and its accomplishments, to demonstrate its applicability to other situations, to work with interested educators in other locales in planning for and installing the whole program or parts of it, and to provide follow-up help that will ensure that the program works well in the new setting.

Diffusion/Adoption

In the past, the term dissemination was used by educators to mean the sharing of information, with no expectation of certain results; sharing of information was considered beneficial in and of itself. Gradually, however, the meaning of dissemination was expanded to imply a complete diffusion/adoption process. This process begins with the transmittal of information (diffusion) and proceeds through installation and utilization of improvements (adoption).

The Department of Education's National Diffusion Network, which provides funds enabling JDRP-approved projects to function as Developer/Demonstrators, represents this diffusion/adoption process by focusing on program improvement through the transfer of exemplary practices from originating sites to adoption sites. The NDN furnishes financial support to two categories of actors, Developer/Demonstrator projects and Facilitators. Developer/Demonstrators are exemplary educational projects that work with schools to plan carefully phased-in implementation by training adopters' staffs and troubleshooting after the program goes into operation at adopting sites. NDN Facilitators, located in every state, serve as catalysts in the diffusion/adoption process. They help schools in their region to assess and clarify needs, they investigate and identify possible solutions, they match schools with suitable programs from the large pool of NDN programs, and, if necessary, they help locate outside funding to support adoption of the exemplary program best suited to specific local characteristics.

To transfer their program to other sites, newly approved exemplary projects move through several major stages of activity. The NDN's Technical Assistance Base has identified six, which can be considered parts of a continuum: planning, awareness, selection, training, implementation, and follow-up. Once a project is committed to active dissemination, project operations will occur simultaneously at several points along that continuum: defining and redefining an overall dissemination plan, generating awareness of the program with some audiences while discussing selection with others, and providing training, help with implementation, and follow-up to adopters.

Materials

purpose

Materials play a key role in the diffusion/adoption process. Good support materials can be invaluable in laying the groundwork for sound adoptions of the program and in organizing staff time. Materials serve several purposes. They

- reinforce and clarify information presented orally; good handouts serve as reminders of major ideas
- extend awareness of the program beyond the range of personal contacts; obviously, project staff have only limited time to introduce the program in person
- open doors; information presented in a lively and interesting manner will stimulate interest
- help others to generate interest; many projects depend on coordinators and facilitators to spread information about their program
- provide concrete evidence of a program's value; a good teacher's guide, for example, demonstrates the soundness of the overall concept when applied to the classroom
- provide a direct yet inexpensive understanding of the project's approach to implementation; curriculum materials and guides identify the program's content; management materials offer direction

Materials will speak for your program and for the way your staff view their work with others. In this way they convey numerous implications about a project's dissemination activities. Materials that are well organized and clearly written imply that you are clear about what the program is and how it can help others. Attractively designed materials tell people that the project cares about its image. Easy-to-use materials let people know that you feel their time is valuable. Properly packaged materials tell people that the staff are experienced. This manual offers guidelines for producing materials that will reflect these images.

basic features

A program's basic features that are critical to its success are another consideration when preparing materials. To identify these features is easier for some projects than for others. Although much attention is currently being paid to "key elements" and "core components," no guidelines for identifying them exist as yet. Nevertheless, descriptive materials should emphasize a program's basic features--those that make it work and those that distinguish it from others.

The content area or management concern of the program, the problem the program is intended to solve, the method and/or materials used, and the school and administrative staff required are all basic features that should be identified and explored. If you take the time to think about the basic features of your program and to write them down, carefully and clearly, at the outset of the dissemination effort, you will find that the organization and development of needed materials and services will move ahead smoothly.

When describing basic features, work from the point of view of anticipated adopters, but remember too that not everyone will approach your program in the same way. As you work with different groups, you will find variations in their plans for using your ideas. Some will want their program to match yours as closely as possible, while others will want to modify it to meet special circumstances.

Emphasize flexibility, and present program operation in broad terms so that potential adopters are not discouraged. One way to do this is to think of a program as a set of interrelated functions: responsibilities that must be assumed and tasks that must be performed in order to achieve success similar to your own. Thinking should focus more on what has to be done, less on the individuals who do it. Of course, if a program is specifically for reading specialists, it is obvious that specialists will be involved in adoptions. If a program uses community resources to achieve its ends, one staff member must coordinate with the community in order to use those resources. Therefore, every adopter will have to identify and train a "resource coordinator." But it is in the project's interest to allow adopters to decide exactly who should be trained to do this job. Be sure you've explained fully why each basic feature of your program is truly necessary, then recognize that adopters will often want to reshape "your" program so that it becomes "theirs."

considerations

Additionally, you may want to consider the following suggestions when preparing your materials: Choose examples with broad appeal. Be alert to national trends, and highlight any popular features in your program. If your project has been reviewed and approved by a state education agency, federal review panel, or other prestigious entity, say so. Emphasize positive evaluation data, but be concise. (You can supply a complete set of figures on request.) Anticipate adopter questions, based on your project experience and also on field tests of your materials. Help potential adopters to anticipate problems by identifying the main difficulties you've faced, along with solutions that have worked for you.

materials development

Major stages of the diffusion/adoption process and the various materials appropriate to each are described in section 2. Guidelines for preparing and producing your materials are presented in sections 3 and 4.

Not every project needs to produce every item. A few well-targeted and well-prepared materials will prove more effective than a variety of poorly planned and executed products. Nor is it necessary to prepare all materials before dissemination activities begin. Experienced exemplary project personnel emphasize that not all materials are needed immediately, and only 15%-20% are essential during the first year of active dissemination. These include instructional, promotional/awareness, and training materials. However, a training manual should be compiled only after initial experience with the process of training adopters.

A final warning from exemplary project staff who are accustomed to traveling all over the country to make presentations and conduct training: keep your materials short and light-weight.

Part of your planning for the various items should involve examination of similar items produced by other projects. No examples are included in this manual because many NDN Facilitators and all NDN regional assistance units have collections of project materials which they are willing to lend. (See appendix C for addresses.) Study the samples carefully to get ideas and to determine what represents both a successful and an unsuccessful presentation. Ask for others' opinions and reactions as well.

Send a copy of your inexpensive descriptive materials (awareness brochure, one-page description, lists of materials, services, trainers) to interested district personnel and to all facilitators, with the suggestion that they contact you for additional copies of these materials or examples of your more expensive items if your program seems to be especially popular in their geographic area. Ask your funding agency officers (both developmental and dissemination) if they would like copies of the inexpensive materials in order to remain current on your program's goals and activities.

section 2

MATERIALS

The complete inventory of materials that can make up a dissemination package is outlined in this section. However, it must be kept in mind that not all are needed immediately, and some, depending on the nature and philosophy of the program, may not be needed at all.

The various items are grouped and presented under four categories, awareness ness and selection, instruction, training, and management, to approximate the stages in the diffusion/adoption process that require materials. Awareness materials, to inform others of the existence and nature of your program, are of primary importance. If your program involves curriculum, instructional materials obviously must be available immediately in order for an adopter to plan for implementation. Training materials should be written only after staff have had some experience with the process.

The materials within each category are all described in a consistent outline format, under these headings: item, audience, purpose, content, format, life expectancy, distribution, and quantity. Although this consistency implies some repetition, it also allows each item to be considered by itself, without relation to the others.

Awareness and Selection

Awareness is the comprehensive term for a broad range of activities and support materials whose purpose is to let interested parties know about an effective educational program. In drafting the overall dissemination plan, it is important to identify those who may be interested in the program, as well as those who can help reach potential users. In drafting the overall awareness plan, it is necessary to determine what kinds of information potential users need, how to present that information, and how to get it into their hands.

To develop this overall awareness plan and to enable project staff to carry it out, consider:

- the awareness materials needed to enable potential users to learn about the program: the brochures, booklets, press releases, descriptions, transparencies, slide/tape presentations, filmstrips, films, or videotapes that must be written, designed, produced, and distributed
- the awareness activities needed to enable potential users to learn about the program: the workshops, conferences, mailings, demonstrations that must be planned and carried out
- existing instructional and management materials that can be used with recipients of awareness materials and participants in awareness activities as is, unchanged; materials that can be used if changes are made; materials that have to be developed from scratch

- steps that will have to be taken to organize project facilities to accommodate visitors who wish to see the program in action at the development site

All of the items described on the pages that follow are awareness materials that you may want to prepare.

item	one-page program description
audience	potential adopters, facilitators, other intermediaries, important district officials
purpose	To give interested groups a concise overview of an educational program.
content	Every project approved by the Joint Dissemination Review Panel has prepared a ten-page submission describing the project, its program, and its claims of effectiveness. When a project receives Panel approval, the Department of Education's public affairs officer prepares and circulates a multipage press release describing the project. For every project approved by the Panel, a one-page description of project activity and program structure is prepared for Educational Programs That Work, an annual catalog of JDRP-approved programs sponsored by the Division of Educational Replication, Department of Education, for the National Diffusion Network. All JDRP-approved projects receive a copy of their catalog description and their press release, which they may reproduce. Even when project-developed materials exist, copies of the catalog description are useful and cost-effective awareness tools. Otherwise, use the ten-page JDRP submission, the press release, and the catalog page to draft a one-page description highlighting target audience; program goals; project philosophy, history, and organization; program structure, materials, and methods; evidence of program effectiveness; implementation requirements; financial requirements; services; contact person, address, and telephone number.
format	One 8-1/2 x 11 inch sheet. Display project title and logo. Back of sheet can be used for other information, such as a list of materials or demonstration sites. Project stationery may be used if appropriate. May be typewritten or typeset, reproduced by office copier or offset printing. Pay attention to quality of reproduction: recipients often make copies.
life expectancy	One year, or as required by changes.
distribution	To potential adopters: in person or by mail. To facilitators: by mail.
quantity	Two hundred copies, until demand can be judged and revisions made as determined by use.

item	awareness brochure
audience	potential adopters, facilitators, other intermediaries, important district officials
purpose	To provide basic information about an educational program to as many different types of people as possible--teachers, administrators, school board members, parents, coordinators; to describe a regular project activity or to advertise a special project-sponsored activity or event; to identify as potential adopters and/or participants those who request further information or who indicate interest in a project-sponsored activity.
content	A brochure that provides basic information about a project and its program to an extended audience will highlight: o target audiences: who benefits by the program o program goals: why the program was developed; what it intends to accomplish o basic features: content area or management concern; objectives within this area or concern; materials and methods used to attain these objectives; staff involved in an adoption; others affected by adoption o project history: when and where the program was developed; by whom; sources of development funding; sites, staff, and learners involved o evaluation results: format and date of testing; tests used; results indicating learner gains, stated in lay terms o adoption requirements: what adopters must provide, obtain, and do to use the program with similar success o services available to potential adopters (for example: needs assessment, assistance in writing funding proposals) and to adopters (for example: preservice training, follow-up inservice training, monitoring, evaluation, other consulting) o contact person, complete mailing address, and telephone number A brochure can also be used to advertise special events or publicize regular program activities. In either case, present details concisely, accurately, interestingly. Any special event or regular activity announcement should also contain a brief program overview. One way to identify potential adopters or participants is to design a portion of the brochure for use as a tear-off return mailer. Returned mailers can be used to assess the appeal of the program or the effectiveness of the brochure. Coding brochures to identify the activity where they were used (if distributed in

person) or the recipient (if distributed by mail) can help in assessing the cost-effectiveness of that strategy. Returned mailers can also form the basis of future mailing lists.

format

Many variations exist, but the least expensive and most common sizes are 8-1/2 x 11 inch (standard business size) or 8-1/2 x 14 inch (legal size) sheets, 20-pound paper or heavier, coated or bond, folded two or three times to 8-1/2 x 3-1/2 inches to fit a #10 (standard business size) envelope.

If brochure is mailed without an envelope, one of the panels must be set aside for the address. Include the project return address in the upper left-hand corner of this panel, area for the address or an address label in the center, and postal indicia or space for a postage stamp or postage meter imprint in the upper right-hand corner. Making the brochure a self-mailer saves cost of envelopes and time spent stuffing them not only for project staff but for others who distribute information.

If brochure is designed to obtain requests for further information about the project, specific aspects of the program, or project-sponsored activities (awareness presentations, site visitations, training workshops) or to preregister participants for special events, paper weight must meet Postal Service requirements for post cards (currently cover stock weight); one panel no smaller than 3 x 5 inches (regulation Postal Service size for 10-cent post card) should contain respondent options on one side and project mailing address on the other; if return postage is paid by the project, include postal indicia in upper right-hand corner of address side of return card.

Professional graphic artist recommended for layout.

life expectancy

One year for an all-purpose awareness brochure. (As your dissemination effort is refined, you may need to revise the brochure less often.)
Limited to date of event for a special event brochure.

distribution

Varies with purpose of brochure.
An all-purpose brochure may be distributed:

- to facilitators, education association officials, and those who request information: by mail
- to visitors, participants in project-sponsored activities, awareness conference participants, parents, and community members: in person
- to other potential adopters: through NDN facilitators and other facilitators and intermediaries,

	including federal and state coordinators, Department of Education officials o indirectly, as a handout at conferences and workshops project staff do not attend If the brochure describes a regular project activity or a special event, it is best distributed directly, by mail, to a predetermined list of potentially interested people. By supervising your own distribution, you will know that intended participants receive timely notice.
quantity	Varies with number of projected activities, availability of low-cost printing facilities to handle reruns, potential time delays involved in securing permission to reprint and scheduling printer, and time remaining before next update. Consider a print run of no fewer than 5,000 copies for minimal cost economies.

item	list of services
audience	potential adopters, adopters, facilitators, other intermediaries
purpose	To provide interested parties with exact and detailed information on services to adopters and potential adopters, with costs for each.
content	List the services provided by the project to adopters and potential adopters in the following order: o awareness (are project staff prepared to organize awareness presentations for local educators? to make presentations at awareness meetings or conferences organized by others? are project staff willing to go outside the immediate area? out of state?) o needs assessment (can project staff help potential adopters perform needs assessments?) o proposal writing (can project staff help potential adopters write proposals for funding to underwrite adoption?) o preservice training (is training required for adopters before program is installed? is training provided at the adopter's site? at the project site?) o inservice training (is training required for adopter staff after the program is installed? is training provided at the adopter's site? at the project site?) o monitoring (can project staff help adopters to monitor the program as installed?) o evaluation (can project staff help adopters to evaluate the program as installed?) o do project staff provide other services? other help after program is installed? The list should identify the location(s) where services are provided: project site? adopter sites? both? somewhere else? State costs exactly, for as many different situations as occur; where services are provided at more than one location, state costs for each. Projects often require adopters to pay some or all costs of travel to and from the adopter's site. Travel costs may or may not include per diem allowance. Some projects require an honorarium as well. If some costs may be underwritten under certain circumstances, that may be indicated, but it must not replace a complete and exact statement of the unsubsidized cost of each service.
format	One or more 8-1/2 x 11 inch sheets. Display project title and logo prominently. Project stationery may be used if appropriate. If content fits on a single page, back of sheet can be used for other information, such as project description or list of materials.

	May be typewritten or typeset, reproduced by office copier or offset printing. Pay attention to quality of printing: recipients often make copies.
life expectancy	Indefinite. List must be revised if changes occur.
distribution	To potential adopters: in person or by mail. To facilitators: by mail.
quantity	Two hundred copies, until demand can be judged. Keep the inventory small, as changes may be frequent. If the supply gets low, reproduce high-quality original on office copier.

item	list of materials, equipment, facilities
audience	potential adopters, adopters, facilitators, other intermediaries
purpose	To provide interested parties with exact and detailed information on materials, equipment, and facilities required for adoption, with the costs for each.
content	List the materials, equipment, and facilities required for program installation. The list of materials that all JDRP-approved projects prepare for the NDN Materials Inventory could be reproduced, or its content could be adapted if another format is preferred. The Materials Inventory list mentions the source for each item; if materials are commercially produced, an interested school can check to see if it has them. If the list is prepared from scratch, itemize the materials, equipment, and facilities required for program installation in the following order: o awareness materials: print and audio-visual o instructional materials: student and teacher--if the list is long, it should be broken down by grade level o materials for evaluating student progress o management materials: program manager's manual, materials for monitoring and evaluating project as implemented o facilities necessary for operation of program: classrooms, meeting rooms, office space, learning center or laboratory, learning carrels, transportation--whatever is required o special equipment State costs as exactly as possible. When listing materials, note what is available free, and in what quantity. For materials distributed at cost, give rates for single copies and for bulk orders if they differ. If your program is complex and various adoption options are possible, you may want to consider formulating a "bare-bones" list, a medium-price list, and a "luxury-option" list.
format	One or more 8-1/2 x 11 inch sheets. Display project title and logo prominently. Project stationery may be used if appropriate. If content fits on a single page, back of sheet can be used for other information, such as project description or list of services. May be typewritten or typeset, reproduced by office copier or offset printing. Pay attention to quality of printing: recipients often make copies.

life expectancy	Indefinite. List must be revised if changes occur.
distribution	To potential adopters and adopters: in person or by mail. To facilitators: by mail.
quantity	Two hundred copies, until demand can be judged. Keep the inventory small, as changes may be frequent. If the supply gets low, reproduce high-quality original on office copier.

item	list of demonstration sites and qualified trainers (see paragraph "Training," p. 25)
audience	potential adopters, facilitators, other intermediaries
purpose	To inform interested parties of locations where the program can be observed in operation and of persons qualified to train others in use of the program.
content	Lists of sites and trainers may be separated or combined. Organize list of demonstration sites by state, county, and city. Identify dates and times when visitors are welcome. Organize list of qualified trainers by state. After the trainer's name, give any special qualifications and identify restrictions limiting trainer's ability to travel and the expenses involved--travel? per diem? honorarium?
format	One or more 8-1/2 x 11 inch sheets. Display project title and logo prominently. Project stationery may be used if appropriate. If content fits on a single page, back of sheet can be used for other information, such as list of materials or list of services. May be typewritten or typeset, reproduced by office copier or offset printing. Pay attention to quality of printing: recipients often make copies.
life expectancy	Indefinite. List must be revised if changes occur.
distribution	To potential adopters and adopters: in person or by mail. To facilitators: by mail.
quantity	Two hundred copies, until demand can be judged. Keep the inventory small, as changes may be frequent. If the supply runs low, reproduce high-quality original on office copier.

item	detailed program description
audience	potential adopters who express serious interest, facilitators
purpose	To provide a comprehensive description of the project and detailed information on steps involved in adoption.
content	Content and organization is similar to awareness brochure and one-page description, but information is more detailed. Additional topics to include: o a concise summary of project objectives and activities o intended outcomes for adopters o project-developed criteria for selecting adopters o a comprehensive list of personnel required for adoption o a detailed breakdown of steps involved in adoption, with time required for each o guidelines for estimating costs and preparing a budget o a comprehensive list of required and optional materials, equipment, facilities needed for adoption Figure on one double-spaced page for each topic. To avoid having to revise and reprint the booklet, do not include costs, which often change.
format	8-1/2 x 11 inch sheets, or 11 x 17 inch sheets folded to that size, with a cover of heavier stock, stapled or saddle stitched.* For a smaller book, use 8 x 14 inch or 11 x 17 inch sheets and reduce to 8-1/2 x 11 inch format or smaller. Display project title and logo prominently. May be typewritten, typeset, or typewritten with typeset heads, reproduced by office copier or offset printing. If expense is no object, informative photos and other well-produced graphics may be included.
life expectancy	Indefinite. Basic features of program and requirements for adoption should not change much. A first version should be prepared as a trial document; reviewers' comments should be used to prepare the final version.
distribution	To potential adopters: in person or by mail. To facilitators: by mail.
quantity	Depends on several factors: Number stipulated in your dissemination grant, conditions and activity in your state, planned use for the booklet (whether to be mailed or carried to conferences as a handout). Two hundred copies is a safe preliminary estimate.

* With the saddle stitch method of binding, staples are inserted through the center fold.

item	evaluation results
audience	potential adopters, facilitators, other intermediaries
purpose	To provide a comprehensive statement of student gains.
content	In addition to results of evaluation, identify evaluation design (pre- and posttests? control groups?), tests used (commercial tests? project-developed instruments?), and dates administered. The ten-page JDRP submission contains extensive material on evaluation design and results which could be used as is, or abstracted. However, as a rule this material is highly technical. Teachers and school administrators without special training in statistics may not know what the technical terms mean or what significance the numbers have for concrete situations confronting them. Keep this in mind when determining how to present evaluation results. State significance of evaluation results in a summary paragraph. This paragraph could also be used for the detailed project description.
format	One or more 8-1/2 x 11 inch sheets, as required. Certain information may best be presented in tabular or graphic form. Design tables and graphs for clarity and legibility. Text may be typewritten or typeset. Report may be reproduced by office copier or offset printing.
life expectancy	Indefinite. Information will not change unless more evaluation is conducted.
distribution	To potential adopters: in person or by mail. To facilitators and other intermediaries: by mail.
quantity	Fifty copies, until demand can be judged.

item	press release
audience	local media, potential supporters of program adoption
purpose	To create broad-based interest in an educational program; to create broad-based support for program adoption among parents, school board members, and taxpayers.
content	By definition,* a press release is an article written in tight, direct style that can be used as is by the media outlet to which it is addressed. The content is news--an event or activity that interests many people, either because it directly affects the local community or because it involves local people. Use the news angle to highlight program innovations and program effectiveness. Emphasize human interest and program benefits. Have someone with professional journalistic experience write the actual release.
format	Typewritten, double-spaced, on one side only of 8-1/2 x 11 inch sheets; allow 1 inch margins on all sides. Number the pages; precede page numbers with a keyword (for example, "Project NAME: Page 1"). At the bottom of every page put the word "More" and the keyword, between parentheses. On the last page use some kind of symbol (such as -30-, #, or the writer's initials in lower case) to indicate the end of the release. At the top of the first page, give the date the release is sent, the title of the project sending the release, the release date (usually immediate), and the words "PRESS INFORMATION" followed by the name of a person who can be contacted should the recipient have questions, an address, and a telephone number.
life expectancy	As required by events.
distribution	To local media--newspapers, radio and television stations: by mail.
quantity	One per contact.

* Adapted from Helen Farlow, Publicizing and Promoting Programs (New York: McGraw-Hill, 1979), pp. 36, 40, 61-64.

item	quarterly bulletin
audience	adopters, facilitators, other intermediaries, DER or other funding agency staff, state education agency personnel
purpose	To maintain contact with and among adopters. To provide adopters and others with news of project activities. To inform adopters and others of project changes.
content	Project bulletins accommodate a wide range of contents: news of new adoptions, news of success from past adoptions, scheduled awareness and training activities, reports in the press on the project and/or adopters, achievements by project staff, changes in staff, extensions or limitations on project activities and services. Bulletins can also be used to solicit ideas from adopters, to mobilize adopters and other interested groups for action, and to give potential adopters acknowledgment and support.
format	Depends on volume of information, but best limited to one sheet 8-1/2 x 11 or 11 x 17 inches, folded. Bulletin can be designed to be mailed under cover (more costly) or as self-mailer (less costly). Size of page should be determined with mailing in mind. Copy may be typewritten, typeset, or typewritten with typeset heads. (Typeset heads can be reused from issue to issue.) May be illustrated with line art or photographs. Best printed by offset.
life expectancy	Project bulletins should be issued no more than quarterly, unless amount of real news to be reported is considerable.
distribution	To adopters, NDN facilitators, other facilitators, funding agency, state education agency personnel: by mail.
quantity	Determined by distribution.

Instruction

Instruction is any activity organized or conducted by teachers or other staff for the benefit of students. Instructional materials include all items required for such activity. Materials for teachers include instructor's manuals, curriculum guides, lesson plans, and directions expressly for teachers and other instructional staff. Some projects may require separate guides for other persons whose responsibilities are related to instruction, such as learning coordinators, experienced site analysts, and guidance counselors. In any case, every product should have clear, exact, and complete directions for performing every described activity. Student materials may include general directions, activity outlines, readings, worksheets, tests, and forms expressly for student use, as determined by program philosophy, objectives, and organization. All materials for students should be age- and/or level-specific. When instructional materials are reviewed to determine their suitability for use by others, references to local settings and conditions should be eliminated.

item	student materials
audience	adopter's students
purpose	To complement instruction, guidance, and other instructional activities.
content	Determined by content area or management concern and by program goals, approach, and methods. Student materials, including readers, workbooks, activity sheets, and learning games, may be packaged as grade- or age-level manuals (if content is segmented and sequenced or if instruction is programmed) or as individual self-contained units, as dictated by approach. Whether students use the materials on their own or under the direction of instructional personnel, simple, clear, and explicit instructions on use of the materials should be included. Save on costs by separating nonconsumables (instructions, resource materials) from consumables (activity sheets, answer sheets). Tests or other required student evaluation materials should be either included in or supplied with student materials, or explicit instructions on test construction should be given in the instructor's manual. However, tests should not be included with instructional material unless administered under open-book and untimed conditions.
format	Dictated by content, instructional approach, packaging, and consumable/nonconsumable nature of the material. Twenty-pound bond paper is acceptable for nonconsumable items and elements. Text may be typewritten or typeset (typewritten if materials will undergo revision). Materials may be reproduced by mimeograph, office copiers, or offset printing. When instructional materials are packaged as self-contained units, different production options may be used for different package elements (typeset text for resource materials and instructions, typewritten text for response materials). High-volume consumables (activity sheets, tests, other student evaluation forms) may be supplied to adopters as masters, to be reproduced at the local site, or as pads. Finishing and binding options depend on the physical character of the material. Certain materials, such as learning games and manipulatives, demand careful consideration of the container needed for transportation and storage.
life expectancy	Consumables: one time only. Nonconsumables: one to three years, depending on nature of use, frequency of use, and student habits.

distribution	To adopters. Typical examples of instructional materials (pages from readers, sheets from workbooks, worksheets) or a typical packet (if materials are packaged as self-contained learning modules) may be circulated to facilitators and other intermediaries and to potential adopters as part of the awareness effort.
quantity	Readers and workbooks: one per student, or as required. Reproducible consumables: one master per piece. Games and manipulatives: one set per grade or age level, or as required. Shelf inventory: to be determined by number required for adoption and number of planned adoptions. Sample materials: fifty sets, until demand can be judged.

item	instructor's manual
audience	adopter's instructional staff
purpose	To provide teachers and other instructional personnel with guidance and support for conducting instruction.
content	Whether providing guidance for instruction at a single grade level or for a whole program, an instructor's manual should include: o a short statement of program philosophy o an overview of the project-developed instructional approach, general method, and specific techniques, with their rationale and an explanation of the relation between program philosphy and instructional approach and techniques o an outline of the course (if more than one unit is included) or program (if more than one level is included) showing how successive units or levels build on preceding units or levels o an overview of program organization and structure, accomplished through narrative, diagrams, or both Depending on the nature and complexity of the instructional program, an instructor's manual may also include: o complete or sample lesson plans, with detailed instructions for their construction and use o complete or sample sets of project-developed student materials o sample sets of teacher-prepared student materials, with instructions for preparation and detailed instructions for use o instructions for adaptation of commercial materials, if these are used in the project-developed instructional program o complete sets (if provided by developer) or sample sets (if prepared by adopting teacher) of student tests, with explicit directions for test construction, instructions on conduct of testing, and answer keys or suggested answers, as required.
format	A multipage book or booklet: 8-1/2 x 11 inch sheets punched for standard three-ring looseleaf binder, or sheets the same size or smaller, stapled, saddle-stitched, or plastic or spiral-bound (depending on thickness of publication). Use inexpensive binding methods until materials are in final form.
life expectancy	One year initially as trial document; multiyear after product is in final form.

distribution	One copy per instructor. Copies of instructor's manuals may be circulated by mail to facilitators and other intermediaries maintaining resource files and to potential adopters as part of the awareness effort.
quantity	To be determined by number of instructors per adoption, manuals required per instructor, and planned adoptions.

Training

Training includes the activities that will enable staff at adopting schools to use a new program at their location without difficulty. The amount of training required and its precise sequencing will depend on the number of different positions involved, the number of persons needed to staff them, the involvement of administrators in conducting the program, and the complexity of program operations. In any event, one or more members of the originating project staff must be designated primary trainers. Later, when the project's dissemination activities become more refined, the project may extend its training by identifying people in other locales as qualified trainers. This extension will not affect the basic nature of the materials required.

Training materials/manuals are outlined here. However, experienced project staff recommend that formal materials be prepared only when some experience with the training process has given your staff a firm idea of what is required and when.

item	training manual
audience	trainers and trainees
purpose	Trainers: to guide project staff in conducting training activities for adopting personnel. Trainees: to complement or supplement training conducted by project staff. Both purposes may be met in a single product, or separate manuals may be issued.
content	Manual for trainers provides the content of training, in outline or detail; contains training sequence and suggestions on how to conduct training session/activity; includes copies of or references to all materials used in training, whether by trainer or by trainee--text of overhead transparencies, explanatory handouts, activity worksheets, schedules, participant questionnaires (whether used as a training or evaluation tool), with answer keys and scoring guides where applicable. Manual for trainees provides only the content of training; includes copies of or references to all materials used by trainees; should be planned as a possible reference after training is completed. Successful training emphasizes the fundamental conceptual and practical aspects of the program: the philosophy and goals, the materials to assist in achieving the goals, the procedures required for effective use of the program. Successful trainers make a special point of linking their program to current practices, showing where differences exist and indicating how project-developed materials and procedures can be adapted to local conditions.*
format	A multipage book or booklet: 8-1/2 x 11 inch sheets punched for standard three-ring looseleaf binder, or sheets the same size or smaller, stapled, saddle-stitched, or plastic or spiral-bound (depending on thickness of publication). Use inexpensive binding methods until the product is in final form.
life expectancy	One year initially as trial document; multiyear after product is in final form.
distribution	Trainer's manual: one copy, before training. Trainee's manual: one copy, during training. If formal sessions are not conducted: by mail.

* Paragraph adapted from John A. Emrick, Susan M. Peterson, and Rekha Agarwala-Rogers, Evaluation of the National Diffusion Network, Volume 1: Findings and Recommendations (Menlo Park, Calif.: Stanford Research Institute, 1977), pp. 82-83, ERIC #ED 147 327.

	Supply copies on request to intermediaries who maintain information centers. Potential adopters may want to review all project materials before making decision to adopt.
quantity	Varies with volume of projected training activities: project staff involved in training; minimum number of trainees per training session or per adoption; projected number of training sessions or adoptions. Print run should be small until product is in final form.

Management

Program management involves a wide variety of tasks required to install and operate a program. Management materials provide information and guidance on such issues as selection of project staff, use of paraprofessionals and volunteers in project activities, use of community resources in program operation, training for project staff, staff responsibilities, establishment and maintenance of strong staff relationships, budgeting, accounting and documenting procedures, student selection and scheduling, development and maintenance of comfortable community relationships, and monitoring and evaluation procedures. Existing management materials, including schedules and timelines, staff development programs, and budgeting methods, should be reviewed to determine their suitability for use at other locations and revised or supplemented as needed. One useful tool is an implementation timeline, which identifies tasks and time required and includes space for calendar dates, to be supplied by adopters. Internal management forms described in this section are used in needs assessment, information gathering, adoption, monitoring, record keeping, documentation, and evaluation. Facilitators and other intermediaries, including state content area coordinators and Title IV-C coordinators, may require you to prepare other internal management forms not described here. Maintain a file of the forms that you produce, and be prepared to cut, paste, and rewrite portions of existing materials to meet unforeseen purposes.

item	project manager's manual
audience	director at adopting site
purpose	To give directions for organizing and managing implementation of new program at an adopting site.
content	Project manager's manual includes: o an overview of program philosophy, goals, and general atmosphere; relationships among all participating personnel; and project director's role and responsibilities o a sequenced calendar checklist of tasks to be performed, separated into start-up tasks, continuing tasks, and tasks to be introduced as implementation proceeds o instructions on student selection and scheduling o instructions on staff selection and training, identifying training needed for each position and when it is to be supplied (preservice? inservice?), and instructions on building good staff relationships o instructions on creating and maintaining comfortable relationships with community and parents o a list of required and optional facilities o budgeting guidelines: a clear outline of costs involved in program operation, noting options and maximum/minimum costs and splitting out facilities, equipment, materials, computer time, transportation fares, staff time, consultant services, and public relations, as required o instructions on evaluation responsibilities, including when and how to conduct evaluation and where to report results o hints on continuation, including making staff changes, retraining, keeping the project "visible" and alive, and finding continuation funding
format	8-1/2 x 11 inch sheets punched for standard three-ring looseleaf binder to allow additions, changes to be made at low cost.
life expectancy	Indefinite.
distribution	One per adopting project: at formal training session. Copies of project manager's manual may be circulated by mail to facilitators and other intermediaries maintaining resource files and to potential adopters as part of the awareness effort.
quantity	To be determined by number of planned adoptions.

item	internal management forms*
audience	staff at home site and adopting site
purpose	To establish and maintain relations with adopter and to facilitate internal management and evaluation.
content	A needs assessment form can be used to determine the degree of match between the program and needs of potential adopters. A preworkshop information-gathering form can help to determine the needs of participants in a particular awareness or training session, thus permitting the presentation to be tailored to that audience. It can also be used to preregister participants so that the number of sessions and presenters or trainers needed and the materials, supplies, and facilities required can be determined. An adoption agreement or implementation plan includes a statement of purpose or intent; identifies the parts of the program that an adopter agrees to implement; specifies who does what, where, and when; and provides space for the signatures of responsible officials. Monitoring forms may be used to determine whether implementation is proceeding successfully and to identify areas where help may be needed. At a more general level, response from monitoring forms may be used to improve adoption strategies. Forms should be easy to fill out: checklists and yes/no or rating-type responses are preferred. Project record keeping and documentation forms are used to record contacts with potential adopters, adopters, and facilitators and other intermediaries. Forms to log visitors, telephone calls, awareness session participants, requests for information, and correspondence should provide space to note the date on which communication or activity took place, staff involved, nature of the communication or activity, results, and follow-up required.

* For samples of these forms, see ED Materials/Support Center, Forms and Formalities (San Francisco: Far West Laboratory for Educational Research and Development, 1978), ERIC #ED 153 662.

	Every project-developed evaluation form should clearly define the intent of the evaluation and identify when data are to be collected. This is true regardless whether the form is intended to determine the impact of long-range treatment (student gains, instructor skill acquisition, successful implementation) or of specific activities (awareness presentations, site visits, training workshops) or to monitor activity on an ongoing basis and reveal needs for redirection, further training, or troubleshooting.
format	Plan forms to fit on both sides of a single 8-1/2 x 11 inch sheet. Display project title and logo prominently. Supply adopters with duplicating masters or model. Masters may be reproduced by mimeograph, office copiers, or offset printing for forms used often.
life expectancy	Indefinite.
distribution	To home site staff: in person. To adopting site: in person or by mail.
quantity	To be determined by the activity and its frequency. Take into account the number of awareness presentations, training workshops, and adoptions planned or scheduled over several months.

item	community resource guide
audience	staff at adopting site
purpose	To train those responsible for creating and maintaining relationships with the community.
content	A program that makes extensive use of community resources should prepare a guide for adopters to explain the philosophy of community involvement, identify community resources with which working relationships should be established, and describe proven procedures and techniques for creating and maintaining such relationships. Examples of forms you need should be included.
format	8-1/2 x 11 inch sheets punched for standard three-ring looseleaf binder, stapled, or plastic bound. Copy should be typewritten. Guide may be reproduced on office copier or by offset printing. As this is strictly an internal working document, the cheapest presentable option is advised.
life expectancy	Indefinite.
distribution	To adopter: in person or by mail.
quantity	To be determined by number of planned adoptions.

item	parent guide
audience	parents
purpose	To interest and involve parents in an educational program.
content	A product intended to interest parents in program operations should give in lay terms an overview of program philosophy and objectives. To make clear what the program can do for children, the parent guide should define project goals; to show how the project proposes to reach these goals, the guide should describe program organization, operations, and process. A product intended to involve parents in program operations should outline the activities in which parents are invited or expected to participate. Identify what parents are to do, how they are to do it, and how much much time is involved, and include a schedule.
format	8-1/2 x 11 inch sheets or smaller of 20-pound bond; glued, stapled, or saddle-stitched, as determined by thickness; copy typewritten or typeset; with or without illustrations and graphics; reproduced by office copier or offset printing, as determined by available time, energy, ideas, and money.
life expectancy	Indefinite.
distribution	To parents: in person, at conferences and meetings, or by mail. Copies of parent guide may be circulated by mail to facilitators and other intermediaries maintaining resource files and to potential adopters.
quantity	To be determined by distribution.

section 3

PLANNING AND PREPARING THE TEXT*

Preparation of text (section 3) and production of the final product (section 4) are the two major phases of materials development and should be considered as one process with interrelated elements. Preparation of the copy encompasses all the tasks involved in making the content (written material and illustrations) ready for reproduction. The elements considered in this section are planning and scheduling the development process, budgeting, review, and final organization.

Planning and Scheduling

stages

All materials pass through several stages: planning, writing, editing, review, revision, production.

planning — Planning determines the internal organization of the product. Ask several NDN Facilitators, your regional technical assistance service unit personnel, and other career education projects for examples of the various materials you expect to prepare. Examine them carefully and ask others to comment. The positive and negative reactions to any examples you see will be helpful in planning your own materials. Then, since effective organization is at least as important as clear writing style, draft an outline for the content of the product. In addition to being a writing guide, this outline will be useful later in drawing up the contents.

writing — Assume that the reader knows nothing about your program. Don't spare details, but at the same time be concise. Avoid needless repetition, but provide sufficient redundancy. (See "Internal Critique," p. 39, for specific suggestions.)

editing — Editing is best done by an outsider (see paragraph "Functions" below). If your budget is not adequate to hire an editor, let several weeks go by before you review your first draft. The lapse of time makes it easier to spot omissions, errors, and infelicities.

external review — Ask outsiders to review your first edited draft. Persons who know nothing about your program are the best test of your writing. If your account makes sense to them, you have probably said enough and said it clearly enough.

*Parts of this chapter have been adapted from Fred S. Rosenau and Diane H. McIntyre, Packaging Your Educational Program: Draft Version, (San Francisco: Far West Laboratory for Educational Research and Development, 1977) and Kathleen Jezierski, Writer's Guide to Publication Development: How to Get Your Publication into an Informational Retrieval System (Columbus: National Center for Research in Vocational Education, The Ohio State University, 1978), pp. 12-13.

revision — Use comments obtained from reviewers to revise your draft and prepare all front and back matter. (See paragraph "External Review," p. 43, "Final Organization," p. 43, for further details.)

production — Production is described in detail in section 4.

schedules

Keeping your overall dissemination plan in mind, determine the best date for delivery of finished products to your doorstep; determine the latest possible date as well. Then backtrack and outline a proposed timetable for each of the stages named above. Remember that everything will take longer than what you've planned. Factors that affect the scheduling of time are both external and internal.

external factors
- o School-year calendar, with its cycles of curriculum selection and adoption: how well does your projected timetable match the curriculum selection process of districts and colleges, NDN Facilitators, and facilitators of other educational networking organizations?
- o Availability of external assistance: how can outsiders be used to speed up production?
- o How will the current workload and future commitments of consultants, suppliers, and service providers affect your schedule?

internal factors
- o Amount of work that has been completed or that is nearing completion.
- o Commitment of project to other necessary tasks unrelated to product development.
- o Illness, absenteeism, and other personnel problems.
- o Previous staff experience with product development; if one person will do most of the work on several products, scheduling must take this into account: relatively more time will be required. If the separate tasks involved in product development can be shared by several people, relatively less time will be needed to complete the entire process.

functions

Certain responsibilities must be assumed in any product development effort. The persons who assume those responsibilities will be determined by staff availability and by budget constraints. The main categories of responsibilities are:

management — One key person should take responsibility for coordinating the entire product development effort. This person should be thoroughly familiar with the program and possess well-developed administrative and organizational skills. If many products are being developed at once, management should be this person's main job. One person may act both as product development manager and as project director. If these functions are assigned to two different people, a comfortable working relationship between them is essential.

writing/ editing — Depending on staff expertise and your budget, you may wish to hire an outsider to do some of your writing, or at the very least to edit your draft materials. In the long run it may be more economical to limit writing by an outsider to awareness material. Detailed project descriptions and certainly curriculum and management materials require the familiarity that only project personnel have. But an editor with professional writing experience is advisable for clean-up. This person may also be able to serve as an analyst to identify the elements that make your program work with learners and the features that make your program different from others. Staff must feel comfortable with the writer/editor's personality and grasp of the program.

graphics — Unless staff members have special aptitude or training, design and graphic art is another area in which you will need expert outside help. Designers may perform one or more of the following tasks:

- o determination of product size and format
- o choice of typeface(s)
- o design of project logo (symbol), special mailer, and/or printing template
- o selection of paper stock
- o choice of color of paper and ink
- o preparation of rough and/or camera-ready layouts
- o negotiations with typesetters and/or printers

review — You will also need to involve outsiders in review of draft materials. These external reviewers should have functions similar to those of the people for whom your materials are intended. But choose people who played no part in the development and validation of your project. (See paragraph "External Review," p. 43, for further details.)

production — The experience and cooperation of those who perform the actual printing and manufacture of your materials are vital. Unless production is entirely within your own agency's capabilities, outside suppliers will be needed for those services. Your agency's purchasing office may be able to help in locating able suppliers. Be sure to check with agency administrators regarding contractual and copyright policies.

staffing

The staff required for product development fall into three groups: those who plan and prepare the content, those who review draft versions, and those who perform the tasks involved in physical production. These people can be supplied from three talent pools: project staff, others in your school or district, and outside workers.

Your own staff is your main resource. They know the project best, and you know their skills and experience. To guide you in allocating staff to product development tasks and to identify areas in which outside help will be needed, consider

- o the aspects of your program with which individual staff members are most familiar
- o the amount of time that individual staff members can devote to preparing materials
- o the stages of product development in which individual staff members can be involved; the specific tasks that each can perform

A worksheet may be useful in determining staff availability. List the names of staff members along the left side of a sheet of paper. Divide the sheet into columns headed

- o area of expertise
- o available time (best expressed as a percentage)
- o task assignments

You may wish to work out a code that indicates whether a given staff member can perform a given task alone or whether that person needs help.

The next best resource after your staff is others in your school, district, or installation.

- o Colleagues can often fill gaps with their know-how, know-where, or know-who.
- o Business classes are a possible source of typing talent.
- o The duplicating department may be able to do some of your printing.
- o The school or district business office may have experience in pricing educational products.
- o The purchasing agent may maintain lists of reliable printshops and mailing firms.
- o A vocational instructor may have contacts in the local business community.
- o "Hidden" talent: instructors may have experience in areas far removed from their current field. But be sure that colleagues whose aid you enlist can complete their tasks in time to meet your deadlines.
- o Outside workers can provide skill, experience, and labor that project staff or district personnel do not have. Not the least of their contributions is a fresh point of view. At the very least, seek outside help for review of your drafts, to ensure that your materials communicate what you intend. If your materials development plan is at all complex, you will probably be using outside workers for other tasks as well.

Budget constraints are a primary consideration when engaging outside help. Remember that services are available in many forms: A consultant can be hired by the hour, by the day, or for a set fee, regardless of time spent to complete the assigned task. You may contract with a printer for single tasks or to perform every step in the production process.

When hiring outside help, ask to see samples of work done for others. Check for possible deadline conflicts arising from other assignments to which the consultant or vendor is committed. Respect professional judgment, but retain the right of approval at specified points in the process.

Often it is appropriate to negotiate an agreement in writing that establishes a firm timeline and identifies points in the process for review of the work that has been accomplished. Such agreements should permit termination of the contract if work proves unsatisfactory. Cost estimates may not prove exact. Printers, for example, often estimate on the high side to provide themselves with a cushion against unexpected problems.

Budgeting

The expense of preparing and producing materials should be included in your complete dissemination budget. The size of that portion of the budget will determine which materials you can produce and when. If you lack experience in determining how much money is available and in planning how it will be spent, ask your agency finance office for help. The product development budget will have to take into account the requirements of any outside sources of funding, the accounting procedures used in your own agency, and your own management style.

Costs will include:

- o personnel services, including staff, temporary help, and special consultants
- o supplies, equipment, and equipment rental
- o printing and reproduction--remember to include photocopies of drafts as well as the final product
- o postage and shipping
- o indirect costs charged by your agency for office and storage space and general administrative expenses

Personnel services account for 60 to 70 percent of your expenditures. To figure these costs, use your materials development time schedule to estimate the number of days that each person will spend on tasks related to producing materials.

Costs in other areas depend on decisions that you will make. Will you rent a changeable-element typewriter or a memory typewriter? Will you hire an analyst? A writer? An editor? A graphic artist? A printer? Don't expect your first estimate to match available funds. Planning an accurate budget takes time, flexibility, and trial and error. Those with experience say that it is better to be overbudgeted than underbudgeted.

Review

Critical review of whatever you produce is important. Awareness materials must convey accurate statements to those who know little or nothing about the program; training, instructional, and management materials must provide solid support to adopters when you're not personally available to answer questions and furnish guidance.

All materials should pass through two types of product review: internal critique and external review by those who will be expected to use them.

internal critique

Internal critique takes place at two points during materials development: before the materials are submitted to potential/actual users for review, and again before revised materials are sent to the printer. Three major considerations should be kept in mind during internal critique. They concern equity, organization and format, and quality.

equity

All materials should be carefully reviewed to determine that ethnic, sex, and age bias are absent from the text and illustrations and that disabilities are presented without bias. The following questions may guide you in eliminating such bias:

- Do the text or illustrations present ethnic, sex, or age groups in stereotypic roles or occupations? In menial roles or occupations?
- Do the text or illustrations suggest that the behavior or language of the members of ethnic, sex, or age groups is inadequate, confused, or helpless?
- Could the language be interpreted as showing ethnic, sex, age, or any other bias?
- Are persons with disabilities represented as isolated and helpless or as involved and active?

organization and format

As you revise existing instructional and management materials and as you develop new materials, you may find that a checklist will help you to include needed items. Checking for the following saves time and can prevent costly printing errors:

- If your school, district, college, or agency requires certain acknowledgments, have they been supplied? Do they appear where required?
- Have you included a disclaimer? (A disclaimer is a statement, required by some funding sources, denying official endorsement of views and opinions expressed in the product.)
- Have you displayed your project logo (symbol)? (A logo helps to establish project identity. See paragraph "Generalities," p. 46, for further information.)
- Is a brief overview of your program included?
- Does the product identify other available project materials?

- o Is the style of presentation consistent with other materials? (Consistency in presentation helps to establish project identity.)
- o Is there information on availability of additional copies of the same product and how to order? Information for related products?
- o Is the name of a representative or contact person included? A complete project mailing address? A telephone number?

Obviously, not every question is applicable to every product, but using a short checklist like this can help to prevent costly oversights and omissions.

quality

Given the other claims on their attention, staff involved in producing printed materials may be tempted to skimp on quality assurance. Nevertheless, attention to the organization of content, the quality of writing, and the accuracy and consistency of presentation pays off in receptive readers. These questions should all have an affirmative answer:

- o Is the content accurate?
- o Is the content current?
- o Is the content appropriate for the intended audience?
- o Is the language clear?
- o Is the language appropriate for the intended audience?
- o Is the internal organization of the product suited to the intended use?
- o Is the physical design of the product suited to the intended use?

Four additional questions should be asked about materials intended for students:

- o Are the materials appropriate for the age of the students?
- o Are the materials appropriate for the developmental level of the students?
- o Does the internal organization of the product make it easy for students to use?
- o Does the physical design of the product make it easy and interesting to use?

Organization of content and writing style can stimulate or discourage reader interest. Attention to just these few general rules is important:

- o Materials should be organized for clarity. Simple, clear, and informative headings identifying basic units of your content allow users of the product to locate needed information quickly. Tables of contents and indexes serve the same end.

- Sentences should be short and simple.
  not "At both the elementary and secondary levels, teachers developed curriculum materials under a performance contract system that encouraged developers to be responsible for their work and that provided them with remuneration for their efforts."
  but "Elementary and secondary teachers developed curriculum materials under performance contracts. Contracts required teachers to produce units by a specified time and paid them for their efforts."

- Sentences should be in the active voice.
  not "Discussion questions are focused on the job skills needed."
  but "Discussion questions focus on needed job skills."

  not "Career education is emphasized by the program in three ways."
  but "The program emphasizes career education in three ways."

- Sentences should be positive.
  not "The resource coordinator doesn't just pursue contacts with the community, but plans activities to involve parents as well."
  but "In addition to pursuing contacts with the community, the resource coordinator plans activities for involving parents."

- Logical relations are important in descriptive or expository prose.
  not "Although the program is working well in urban settings, it was developed for a rural setting."
  but "The program was developed in a rural setting, but it also works well in urban settings."

- The choice of words should be appropriate to the content. Although jargon is widely used in education, it is not an acceptable substitute for well-developed thought and clear expression. Terms that make sense in discussions of computer technology, systems analysis, and clinical psychology have little to do with students in classrooms.

- The tone of the writing should fit the content and be consistent. A number of manuals on writing style are available. One of the best is The Elements of Style, by William Strunk, Jr.* A careful reading of the first two chapters of this brief text ("Elementary Rules of Usage" and "Elementary Rules of Composition") can be helpful even to experienced writers.

*William Strunk, Jr., The Elements of Style: With Revisions, an Introduction, and a Chapter on Writing by E. B. White, third edition (New York: Macmillan, 1979).

- Consistency in style (or lack of consistency) is a highly visible feature of printed materials. Inconsistency is disturbing, as, for example, when one encounters the words "full time teacher" on one page and "full-time teacher" on another. When several individuals are involved in producing materials, the likelihood of inconsistency increases. Several different systems for styling printed materials are used in this country. A Manual of Style published by the University of Chicago Press* is one of the most respected. Whichever guide you choose, follow it to the letter.

  Commercial publishers use a style sheet to maintain consistency. Decisions about the spelling, hyphenation, and capitalization of individual words and phrases, about punctuation, about the handling of numbers, dates, abbreviations, and peculiar typographic features are recorded systematically. Words are listed under letters of the alphabet.

  example: F
  field test (n.)
  field-test (v.)

  S
  self-evaluation
  semiliterate
  subnormal

  Other text and design elements are listed under keywords ("dates and numbers," "punctuation," and so forth).

  example: Capitalization
  As a rule of thumb, use lower case.
  In titles, capitalize prepositions of five letters or more.

  Numbers
  Spell out forms for cardinal numbers through nine; use Arabic numerals for 10 and larger, except when they begin a sentence.

  Punctuation
  the three Rs
  several D/Ds
  the 1970s

  At any stage of review, the use of a style sheet in connection with a style guide will help produce a consistent, well-finished look that inspires confidence in the content of your materials.

*A Manual of Style for Authors, Editors, and Copywriters, twelfth edition, revised (Chicago: University of Chicago Press, 1969), pp. 5-20.

Every product should be carefully proofread at several points. Careless mistakes in printed materials can diminish user confidence in your program. (See section 4 for specifics.)

The last element in the internal critique process, the quality of the printing, is critical. The organization, style, and presentation of your content may be exemplary, but if the printer is careless or if the printing process is inadequate, the finished product may fail to generate the interest it deserves.

external review

Three questions should be asked of users:

- o What purpose did the materials serve?
- o What problems were encountered in using them?
- o What changes need to be made?

Answers to the first question will enable you to determine whether your intended purpose was accomplished. Answers to the second and third questions will help you to better focus the materials you've developed.

For awareness materials, you may wish to ask recipients an additional question: "What do you understand the program to be?" Responses to this question will tell you whether the materials make it easy for users to understand what the program offers and what it requires.

Different individuals will provide different points of view. A state Career Education Coordinator or NDN Facilitator will have one perspective. Exemplary projects with considerable experience in dissemination will have another. Potential adopters and staff at your school or institution who have not been involved in the project's development can also be invited to comment. You may wish to ask different individuals to review different items. Instructors are better able than others to judge the effectiveness of instructional materials. Experienced administrators might be the best reviewers of management materials. In any event, don't depend on only one or two reviewers for comment. A wide range of reviewers will better reflect the range of adopters and facilitators that you'll work with.

Use your professional judgment to weigh and balance the comments received. Take time and budget constraints into account when deciding which changes to make and whether subsequent field critique is necessary or possible.

Final Organization

All comments from both external and internal reviewers must be weighed and the pertinent ones incorporated into the manuscript. The critical eye of an editor is important at this stage. Special care must be taken to ensure the consistency of formatting as well as expression. It is also at this stage that such elements as title page, table of contents, glossary, bibliography, for example, will be pulled together and refined. The major elements you may want to consider for your various materials are outlined here.

major divisions and elements*

Books and pamphlets normally have three major divisions--front matter, text, and back matter. Each of these divisions has several elements, but not every product needs every one. A multipage manual will require a cover as well as a title page. A brochure is only a single folded sheet, so one of the panels serves as a cover and there is no title page. A sheet listing project-produced materials or services has neither cover nor title page, though it must identify the project by name, use the logo if the project has one, and include a complete mailing address and telephone number.

Front matter:

cover	o needed only if publication is thick/heavy or important enough to require protection (use of cover raises print costs) o same information as on title page, omitting date of publication and author(s) o if publication is thick enough to require spine cover, spine gives publication title, project logo (symbol), and project title
title page	o project logo, name, and location (city and state) o title of publication (Project Manager's Manual; Teacher's Manual, Grade 5) o author (if appropriate or required) o date of publication (month or season and year, if timeliness is important; otherwise just year)
back of title page	o acknowledgments (if required) o disclaimer (if required) o grant or contract number under which funds for development of the product were supplied o copyright statement (if applicable)
table of contents	o needed for any publication divided into chapters or sections o identifies individual chapters by title, with beginning page number o may identify subheads within chapters (if used), but beginning page numbers may be omitted o identifies tables or illustrations, with page numbers o identifies each item of back matter by title with beginning page number o chapter titles, subheads, and titles of tables, illustrations, and back matter items must appear exactly as in the text
introduction	o general information on the project and its philosophy o general purpose of the publication o overview of other project materials and their interrelation

*Adapted from A Manual of Style for Authors, Editors, and Copywriters, twelfth edition, revised (Chicago: University of Chicago Press, 1969), pp. 5-20.

list of abbreviations, acronyms	o alphabetical listing of terms used often throughout the text in abbreviated form; list gives abbreviations, followed by spelled-out terms

Text:

The text is the content of the publication. If the content is at all complex, it should be divided into chapters or sections that are titled and numbered consecutively. Titles should provide a reasonable idea of contents and be short and similar in tone. In commercial publications, chapters begin on a right-hand page.

If chapters are long and their contents complex, subheads may be used to guide the reader. Subheads should be short, concise, meaningful, and similar in sense and tone.

Tables or charts presenting statistical material should be organized for clarity and ease in reading.

Illustrations may be used to clarify a special point or break up text. Photographs used to illustrate a point must be informative. For example, a picture of people sitting around a table is unlikely to illustrate an action, although it might convey the idea of ethnic or gender balance.

Back matter:

Back matter is everything that follows the text. It is unnecessary except for complex publications. Back matter includes one or more of the following items, in this order:

appendix	o explanations, elaborations, examples that are not essential parts of the text but may add clarification; long lists or tables; pertinent documents referred to in the text; but odds and ends are not appropriate o if there are two or more appendixes, they should be numbered, and each should have a title
glossary	alphabetical list of technical words or of familiar words used in special senses, with definitions (to eliminate the need for a glossary, a word or term may be defined where it first occurs within the text)
bibliography or references	o identifies published sources used in writing the text and/or additional sources reader may wish to refer to for further understanding o entries arranged alphabetically, by author, last name first; for books, give title, place of publication, publisher, year of publication or copyright; for articles, give title, journal title, volume and number, year of publication, inclusive pages o consistency counts; incomplete or inexact references are useless

index	o a detailed and specific breakdown of contents is useful for publications that serve some reference purpose; in other cases, table of contents should suffice o terms listed in alphabetical order, followed by specific page references
inside and/or outside back cover	may list other publications and give ordering information; include prices, ordering address, and required form of payment

generalities

Every product should identify the group that produced it. The project name should be displayed prominently. In addition, a well-designed and consistently used logo can provide instant identification. If you don't already have one, it would be well worth your time and money to have a graphic artist design one for your program. Keep in mind that the purpose of a logo is to attract attention and convey an image and that "less is more": A simple design is more effective than a complicated one. Also remember to acknowledge affiliation with any national or state dissemination effort.

It is wise to display the address and telephone number of the project adjacent to the logo.

The title of a product (for example, Teacher's Manual or, if there are separate manuals for different levels Teacher's Manual, Grade 5) should read the same whether placed on the cover, title page, spine, or text. It is disconcerting when the wording of a title varies from one location to the next.

Printing on both sides of the page not only gives your materials a professional look, it also saves paper.

Pages should be numbered--right-hand pages with odd numbers, left-hand pages with even numbers. Front matter is paginated with continuous lower-case roman numerals (i, ii, iii, and so on). Text and back matter are paginated with continuous arabic numerals (1, 2, 3, and so on).

section 4

PRODUCTION*

The tasks involved in planning and preparing text are presented in section 3. This section outlines the tasks involved in producing materials: preparing rough layout, obtaining printing estimates, selecting mailing containers, preparing camera-ready copy, selecting and preparing photos and graphics, completing layout, printing, and finishing and binding. These tasks are not discrete. Most overlap, and all are interrelated. They are grouped here under three broad headings: design, preparing copy for reproduction, and printing.

Design

Design refers to the specification and arrangement of all graphic elements for a printed product. People respond favorably to materials in which

- visual appearance is simple, modest, yet inviting
- typography is clear and legible
- layout complements organization of content, enhances readability
- bulk and weight are minimized
- paper and binding are durable

A graphic artist (if budget permits) or a printer can help achieve those characteristics.

Except for publications composed of straight typewritten copy, a rough layout is the first step in the production process. The rough layout is a hand-drawn representation of the final printed product. It gives an approximate image of the printed publication; ensures that all copy will fit into the final product, that all elements are visually pleasing, and that the design complements the message; and provides a basis for estimating printing costs.

The rough layout should be prepared by a graphic artist or designer, although a project staff member can learn to perform the task. The rough layout should neatly and accurately represent the projected finished product, with schematic representations of all design elements to identify overall size and format and location of text, graphics, headings, subheads, margins, and white space. Headings, subheads, and captions are sketched in the size and weight in which they will appear in the final product. The location of any drawings, photographs, or charts is indicated. Page numbers should appear in the same place on every page--centered, in the bottom margin, or in the corner opposite the bound margin. Chapter heads and subheads should occur in the same position relative to text wherever they appear.

* Adapted from Guide to Producing Print Materials (San Francisco: ED Materials/Support Center, Far West Laboratory for Educational Research and Development, 1979).

Preparing Copy for Reproduction

Preparing copy for reproduction refers to the process of making draft copy, including illustrations, ready for paste-up and printing.

typeface

Copy can be prepared on a typewriter or it can be typeset. The choice depends on the money and time available.

typeset copy

- o provides the widest range of type sizes and type styles
- o permits right-hand justification (alignment at margins)
- o gives a professional appearance to finished copy
- o is easier to read and reproduces better
- o makes maximum use of available space

but

- o cost is relatively high and extra time is required for transporting initial and proofed copy to and from typesetter
- o should be considered only for final product

typewritten copy

- o costs less to produce
- o requires less time for production
- o provides some choice in type styles
- o reproduces quite satisfactorily if plastic ribbon is used in electric typewriter

but

- o selection of typefaces and sizes is limited
- o justified right-hand margins are not possible except on word processing machines
- o typewritten documents are bulkier (increases printing, packaging, mailing costs)
- o is distracting and unattractive if not dark and clear

These two methods of preparing copy for the printer's camera can be combined in a single printed product. That is, text copy can be prepared on an electric typewriter, whereas titles, headings, subheads, and captions can be typeset. In this case, be careful to select a typeface that complements the typewriter type style. Headings and subheads can also be constructed for typewritten copy from transfer letters (letters on clear sheets, which can be transferred to a surface by positioning and rubbing). However, transfer letters lack the uniformity of typeset characters and they are hard to space and align. It requires skill to use them with good results.

illustrations

Illustrations provide relief for the eye and help to enliven text. Line art (drawings) needs no preparation for the printing process, but photographs do. Avoid photographs that have complex subjects and illustrations that some might consider biased or offensively cute.

proofreading

Proofreading is important. It takes time, patience, and painstaking attention. Failure to allow sufficient time for careful proofreading can result in embarrassing errors and costly mistakes. An effective method for amateurs requires two people, one reading aloud, noting all marks of punctuation, the other following the typewritten or typeset text. This is especially recommended for tables and lists with numbers. Every step of the production process that alters the form of the original draft copy requires proofreading. Remember that typesetters charge for any changes that are not due to their errors.

Printing

The printing process used will affect decisions about type, illustrations, and paper. It will be determined in part by budget considerations.

Three printing processes are used commercially today: offset lithography, letterpress, and gravure. Of the three, offset is by far the least expensive. Office-machine photocopying of camera-ready copy may be acceptable for some materials, especially if the quantity needed is not large. Some "instant" printers now photocopy camera-ready copy onto paper stock available in a variety of weights and colors. These printers can also reproduce camera-ready copy on your letterhead or other paper. Many projects use mimeograph equipment. The resulting materials are serviceable but unappealing. However, the cost is low, and production of additional copies is an easy matter.

selecting a printer

Unless you have printing facilities of your own, an outside printer will be needed. Any graphic artist or designer will know several printers. The Yellow Pages are the next best source of names. Estimates of printing costs, called bids, should be obtained from at least two different printers. Ask to see samples of similar work the printer has done for others. Talk to former clients to determine the printer's willingness to meet deadlines and the general quality of finished products.

final layout

Before printing, the graphic artist (or the staff member who prepared the rough layout) must make the final layout. All the elements of the design are positioned and pasted into place on artboard. When only typewritten copy is used, it is necessary only to pull all the pieces together.

color

Printers have charts showing the colored inks that they use and the various sizes, weights, and colors of paper. These charts enable you to judge the potential effect of various combinations and to make cost comparisons.

The great majority of print products use black ink on white paper. Colored paper and/or ink are generally reserved for covers. Color in text is better suited to certain types of products, such as awareness materials. The amount of color you use will depend on the materials development budget. Black ink is cheapest. Every additional color used in the same print product increases the cost, since the press must be cleaned every time that a different color is applied. If color is desired, it may be introduced via the paper or by screening (greater or less intensity of the same color). It is wise to avoid unusual combinations and extremes of any sort. If the overall design and the type used to compose text and headings are clear and effective, ink of one color on colored stock will generally suffice to create the impact required. A wide variety of effects can be created with ink of one color if special printing techniques are used, but bear in mind that special techniques can increase printing costs, as do most colored papers.

paper weight

Ask the printer what stock is on hand: A client willing to use available stock may make substantial savings. The substance and weight of the paper used affects shipping costs, over and above printing costs. For consumable products, inexpensive 20-pound bond paper is best.

paper size

If the dimensions of pages in the finished product (trim size) are compatible with standard paper sizes, costs can be limited. The four standard sizes, in inches, are 8 1/2 x 11, 11 x 17, 17 x 22, 23 x 35. Use of standard size paper also helps to limit finishing and binding costs. Packaging and storage are simplified if products are the same size and shape.

finishing and binding

These are the last stages of the printing process, involving the trimming of printed sheets to the specified page size and whatever folding or binding is required. (Brochures may need only to be folded. Multipage publications will require folding and binding.) There are a number of possible folds and several different ways of binding a publication. (See appendixes A and B.) Costs vary widely. Some bindings are far more durable than others. Some binding styles allow pages to open fully and lie flat for easy reading; others do not. For these reasons, the use to which the product will be put must be considered when deciding how it will be finished and bound.

The least expensive binding methods are rubber bands, shrink wrap (pages encased in plastic wrap), and sleeve wrap (pages enclosed in a wide paper band). Other common bindings are described in appendix B.

Cost Savings

There are many ways to save on costs if budgets are tight. Here are just a few:

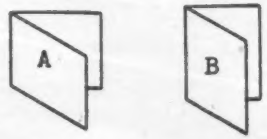
- To save on paper, print back-to-back.
- Heavy paper costs more than light paper, so use a lighter weight paper; however, make sure that print will not show through, especially if you print back-to-back.
- You can save as much as 25 percent on paper costs if you buy your own and deliver it to the printer yourself.
- To save on cost of envelopes and stuffing, design materials as selfmailers.
- To achieve variety at low cost, use ink of one color with screening (greater or less intensity of same color).
- Use local agency printing and mailing facilities if time allows.
- Inquire at local colleges or art schools for students or faculty who can provide graphic consulting and perform layout work.
- Inquire at local colleges for typesetting facilities.
- Plan to spend the first year experimenting, trying out ideas, searching for the most efficient and cheapest ways of producing your materials. Then make final decisions on what you are going to do and how to do it.

appendix A

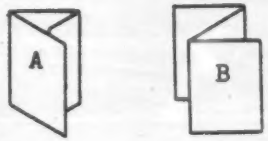
Folding Styles

Before designing a product, check with the printer and/or the binder to learn which sheet can best be accommodated by the press and which folds can be produced most economically by the folding machinery.

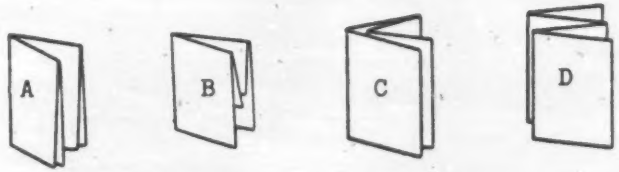
FOUR PAGE. The simplest folding possible: one fold, producing four pages. The sheet can be folded on the short side (A) or the long side (B).



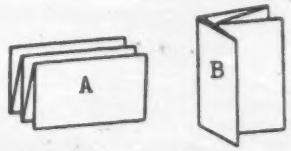
SIX PAGE. Two parallel folds -- regular (A) or accordion (B) -- producing six pages.



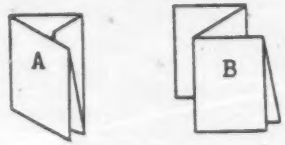
EIGHT PAGE. Commonly called the French fold, when the sheet is printed on one side only, folded once in one direction, rotated 90 degrees, and folded again at right angles to the first fold (A); an option on this fold is (B), the short fold. An eight-page folder can be produced by making two parallel folds (C) or three parallel accordian folds (D), also called the Japanese fold. These are suitable if you wish to print on both sides of the sheet and to have a product that is easy to open. Other options are (E); the double-gate fold (F); and the modified gate (G).



TEN PAGE. Four parallel accordian folds (A) or four regular parallel folds (B).



TWELVE PAGE. If the first fold is followed by two right-angle folds -- either regular (A) or parallel (B) -- a 12-page folder is produced.



appendix B

Binding Methods

Gluing uses glue or padding cement and thin strips of cheesecloth or gauze to bind thin books or booklets. Similar to the method used to join sheets in an ordinary writing tablet, this method is inexpensive, but it is not appropriate for products that see repeated use.

Perfect binding uses similar means--adhesive strengthened by gauze glued over the spine--to hold the pages of thicker publications together. The cover is pasted to the spine after the pages are trimmed. Relatively inexpensive, durable, and attractive, this method can be used successfully only with products of a certain thickness.

Saddle stitching is the most common method of binding thin books or booklets. Staple-like wires are inserted through the spine/backbone into the center spread. A cover of the same stock as text or of heavier stock can be used. Simple and inexpensive, this method allows pages to open fully and lie flat for easy reading. However, it is useful only for thin publications.

Side stitching employs similar means--wires inserted from front page to back page one-quarter inch from the binding margin--for thicker publications. Covers of heavy stock are affixed with glue and trimmed. However, the wires prevent the pages from opening flat, and wide inside margins are required to provide space for the wires.

In plastic binding, pages and cover are trimmed, slots or round holes are drilled or punched, and plastic coils are inserted through the holes. Ideal for textbooks, manuals, and the like, this method allows pages to open fully and lie flat for easy reading. Drilling or punching the requisite holes adds to the cost, and products so bound do not pack or stack well.

Stronger than plastic binding, spiral binding substitutes metal coils with single, double, or multiple rings. Ideal for textbooks, manuals, and the like, this method allows pages to open fully and lie flat for easy reading. Drilling or punching the requisite holes and inserting the spiral coil add to the cost.

Materials can be printed and inserted into looseleaf binders with a silk-screen printed cover or they can be hole punched and collated for insertion into binders supplied by the user. This latter approach saves dollars by reducing mailing weight and eliminating purchase of binders. Crack and peel covers can be printed to permit ready identification of your materials. The user just peels off the backing and sticks the cover to a binder.

appendix C

Key Contacts

National Diffusion Network Facilitators

- Located in 49 states, District of Columbia, and Virgin Islands
- Help JDRP-approved projects understand their respective state's priorities and regulations and locate potential adopters
- Addresses from:
  Don Twiford
  Division of Educational Replication
  Room B-448, Trans Point Building
  400 Maryland Avenue, S.W.
  Washington, DC 20202
  202/245-2243

NDN regional service units

- Situated geographically to serve NDN projects
- Help NDN Developer/Demonstrator projects (and Facilitators) in planning and carrying out dissemination activities
- Addresses from:
  Drew Lebby
  Division of Educational Replication
  Trans Point Building
  Room B-448
  400 Maryland Avenue, S.W.
  202/245-2243

State Career Education Coordinators

- Located in every state
- Help career education projects understand their respective state's priorities and regulations and locate potential adopters
- Addresses from:
  Sidney C. High
  Office of Career Education
  ROB-3, Room 3108 A
  400 Maryland Avenue, S.W.
  Washington, DC 20202
  202/245-2331

ESEA Title IV-C Coordinators

- Located in every state
- Provide funding to school districts to develop new programs or adopt exemplary programs
- Addresses from:
  Alpheus L. White
  Division of State Educational Assistance
  Title IV-C
  ROB-3, Room 3010
  400 Maryland Avenue, S.W.
  Washington, DC 20202
  202/245-2592

Regional Office of Educational Programs, Dissemination Centers

- Located in 10 geographic areas
- Help exemplary projects prepare submissions to JDRP and establish contacts for dissemination activities
- Addresses from:
  William McLaughlin
  Regional Office of Educational Programs
  FOB-6, Room 4013
  Washington, DC 20202
  202/245-6996